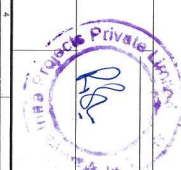
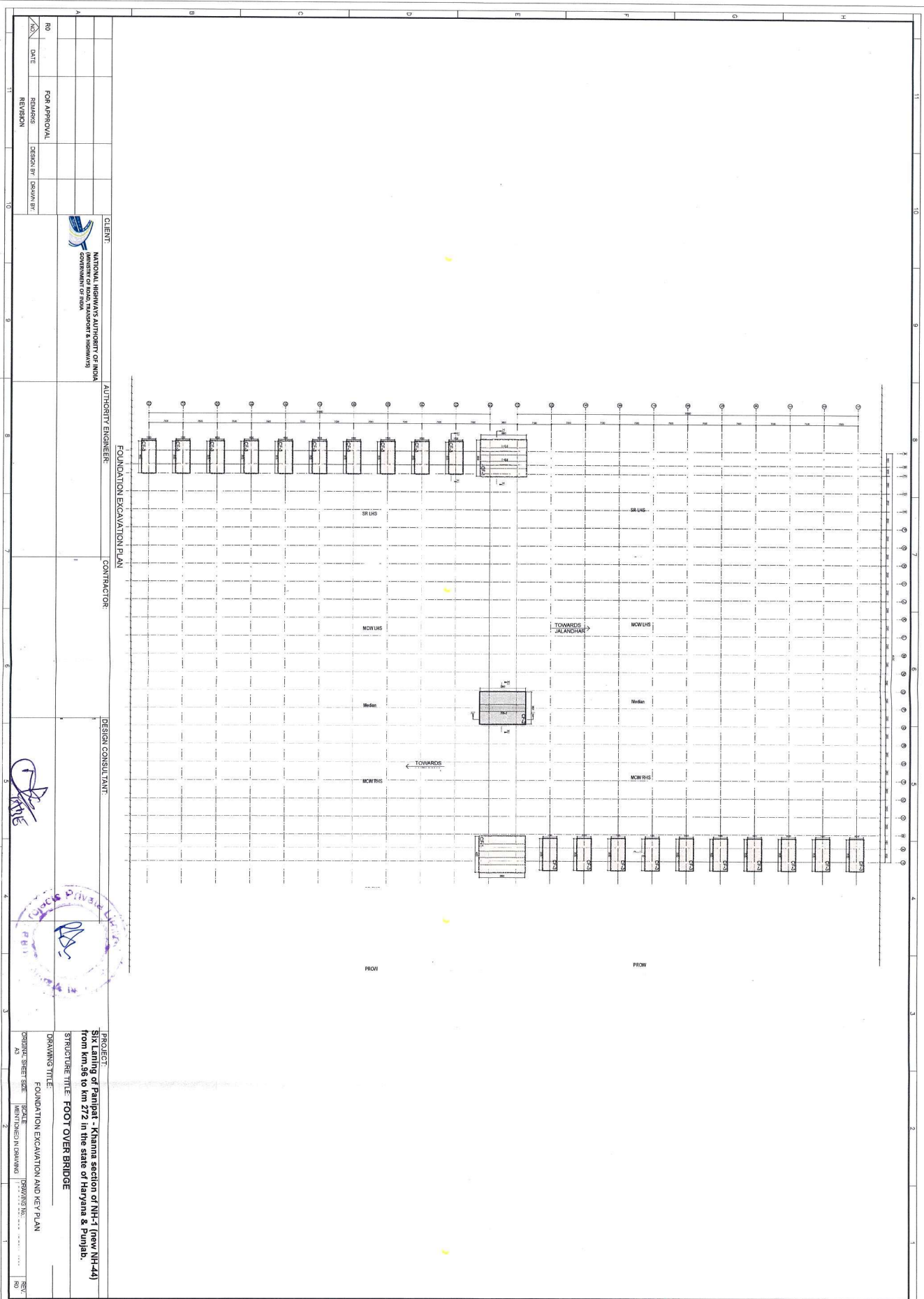


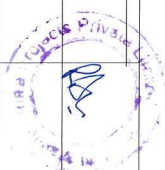
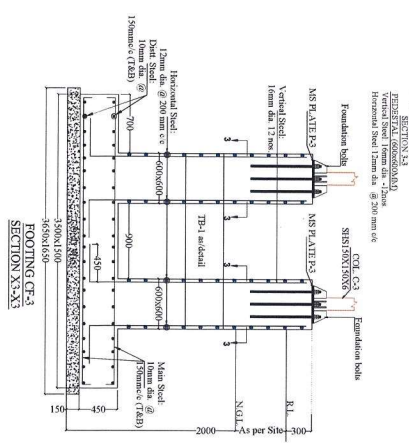
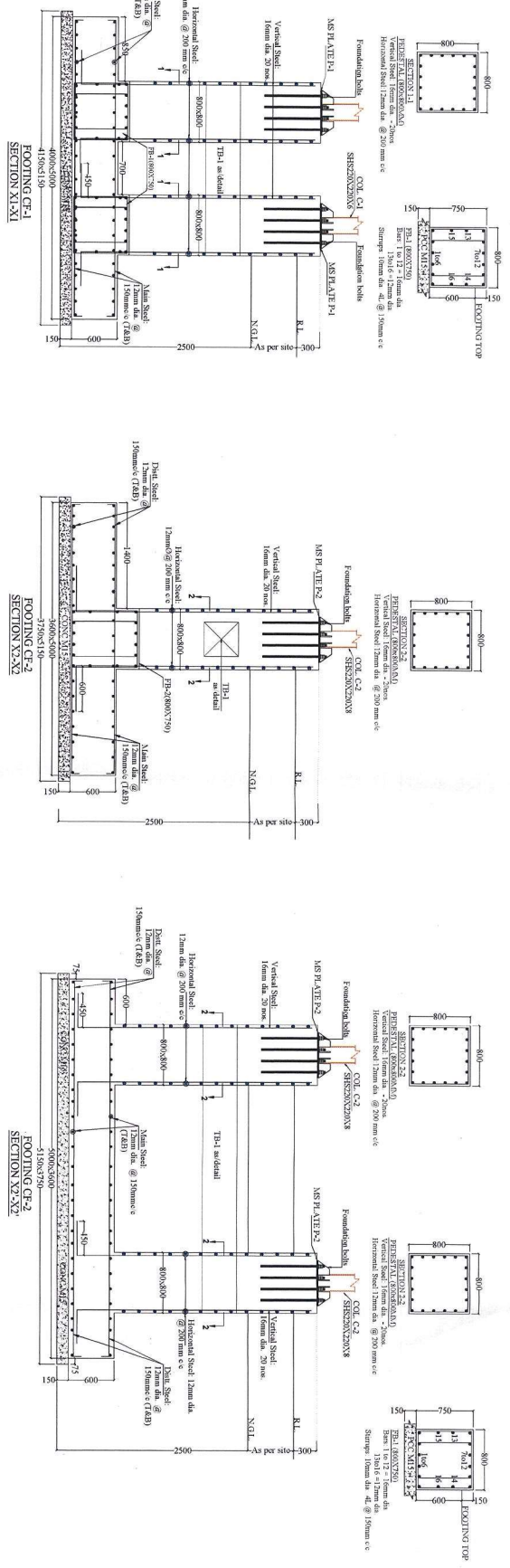



CLIENT:		NATIONAL HIGHWAYS AUTHORITY OF INDIA Government of India	
AUTHORITY ENGINEER:		CONTRACTOR:	
DESIGN CONSULTANT:		PROJECT:	
DATE: _____ FOR APPROVAL: _____ DESIGN BY: [Signature] REVISION: _____		PROJECT: Six Laning of Panipat - Khanna section of NH-1 (new NH-44) from km 96 to km 272 in the state of Haryana & Punjab. DRAWING TITLE: FOOT OVER BRIDGE OF 50M SPAN DRAWING TITLE: GENERAL ARRANGEMENT DRAWING SCALE: _____ IDENTIFIED IN DRAWING: _____ PREPARED BY: _____ CHECKED BY: _____ DATE: _____	

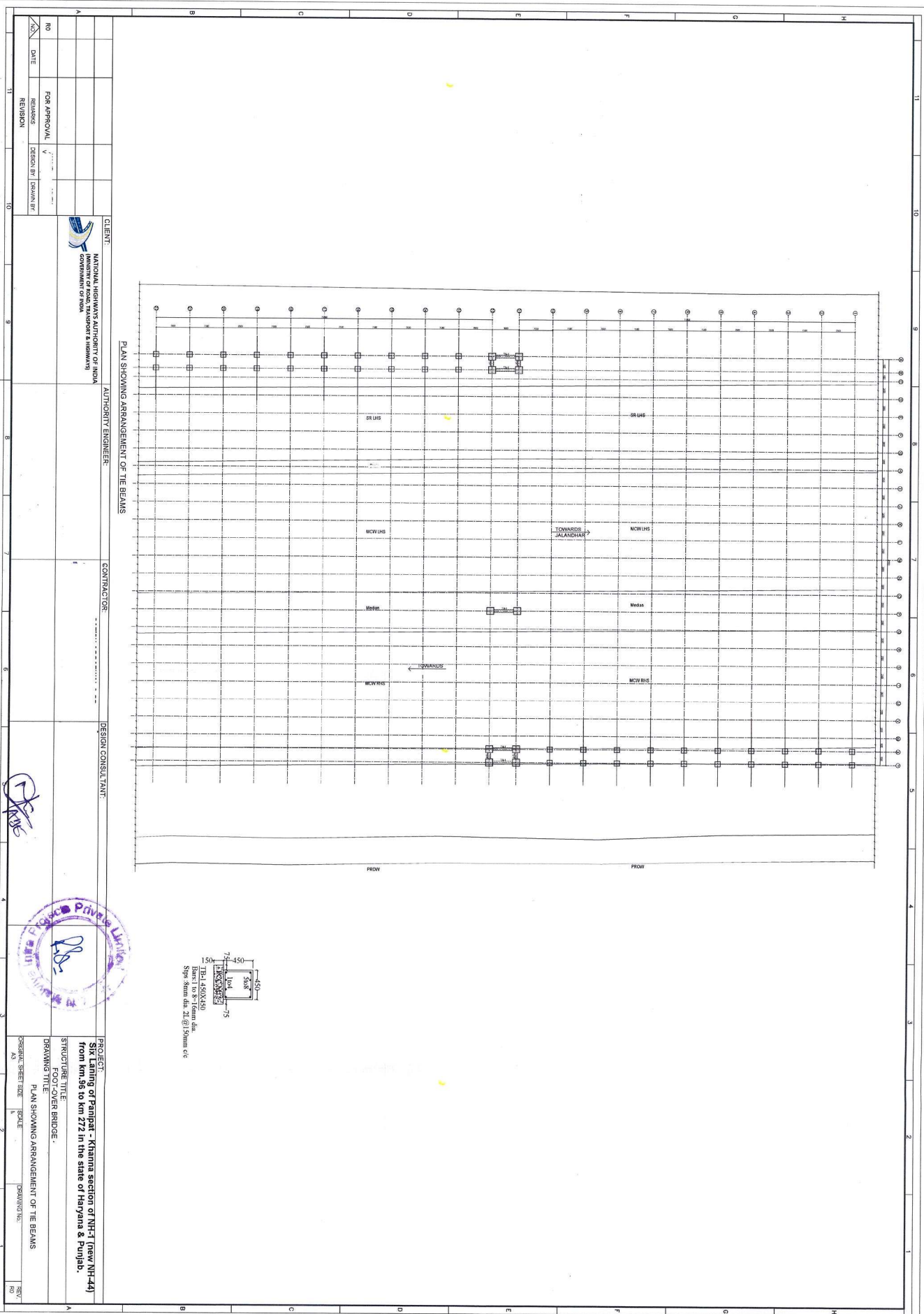




 <b>NATIONAL HIGHWAYS AUTHORITY OF INDIA</b> <small>Department of Road &amp; Inland Waterways</small>		<b>CLIENT:</b> NATIONAL HIGHWAYS AUTHORITY OF INDIA <small>Department of Road &amp; Inland Waterways</small>
<b>FOR APPROVAL</b> DATE: _____ SIGNATURE: _____ DESIGN BY: _____ DRAWN BY: _____		<b>AUTHORITY ENGINEER:</b> _____ <b>CONTRACTOR:</b> _____ <b>DESIGN CONSULTANT:</b>  
<b>PROJECT:</b> Six Laning of Panipat - Khanna section of NH-1 (New NH-44) from km.56 to km 272 in the state of Haryana & Punjab.		<b>DRAWING TITLE:</b> FOUNDATION EXCAVATION AND KEY PLAN
<b>ORIGINAL SHEET SIZE:</b> A3 <b>SCALE:</b> AS NOTED IN DRAWING <b>ISSUED BY:</b> _____ <b>REV:</b> _____		<b>PROJECT NO.:</b> _____ <b>DATE:</b> _____



NO.	DATE	REVISION	FOR APPROVAL	DESIGN BY	ISSUED BY
CLIENT:			NATIONAL HIGHWAYS AUTHORITY OF INDIA Government of India		
AUTHORITY ENGINEER:					
CONTRACTOR:					
DESIGN CONSULTANT:					
PROJECT:			Six Laning of Panipat - Khanna section of NH-1 (new NH-44) from km 96 to km 272 in the state of Haryana & Punjab.		
STRUCTURE TITLE:			FOOT-COVER BRIDGE.		
DRAWING TITLE:			FOUNDATION DETAILS		
ORIGINAL SHEET SIZE	SCALE	DRAWING NO.	REV.		
A3	3		RO		



PLAN SHOWING ARRANGEMENT OF THE BEAMS



CLIENT: NATIONAL HIGHWAY AUTHORITY OF INDIA  
GOVERNMENT OF INDIA

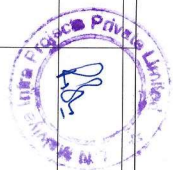
AUTHORITY ENGINEER:

CONTRACTOR:

DESIGN CONSULTANT:

NO.	DATE	REVISIONS
1		FOR APPROVAL
2		DESIGN BY
3		CHECK BY
4		REVISION

*[Handwritten Signature]*



PROJECT: Six Lining of Panipat - Khanna section of NH-1 (new NH-44) from km 56 to km 272 in the state of Haryana & Punjab.

STRUCTURE TITLE: BRIDGE

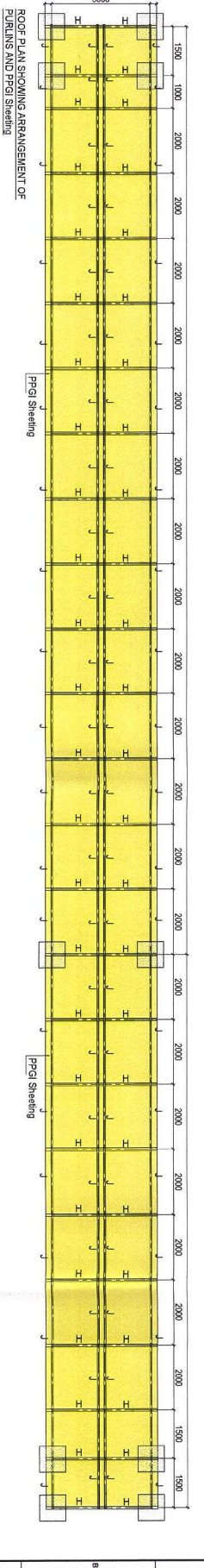
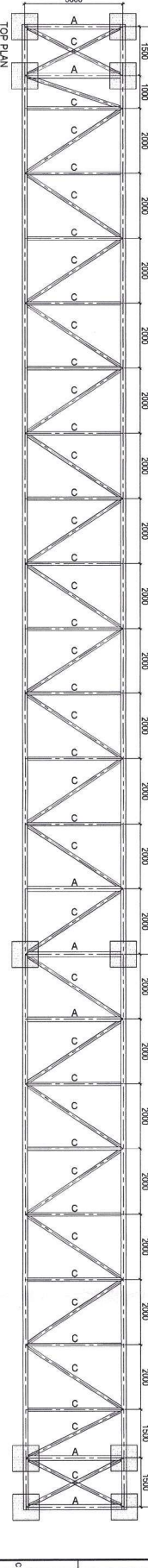
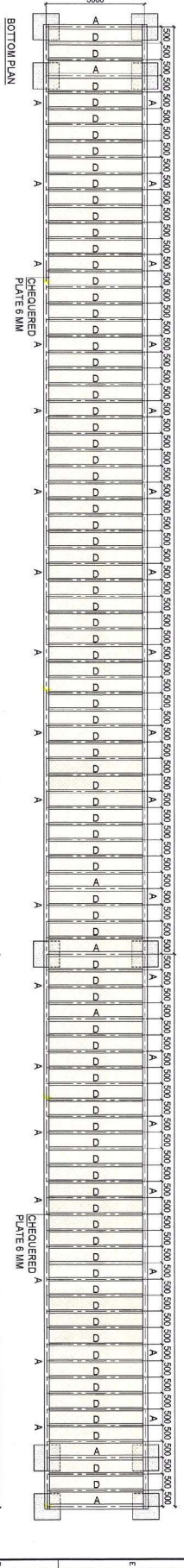
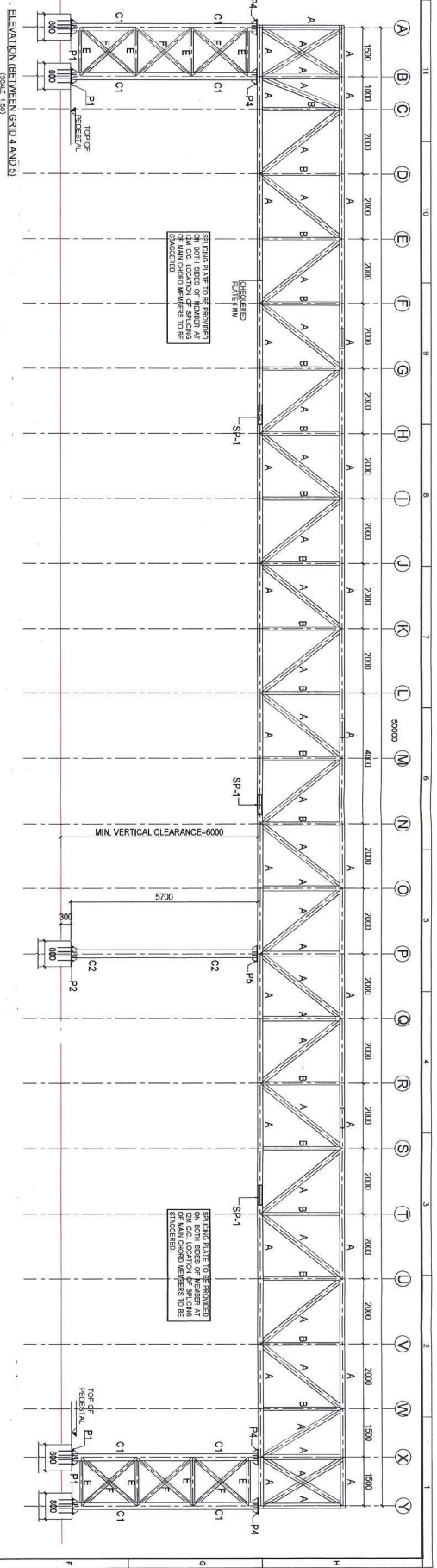
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ORIGINAL SHEET SIZE: A3

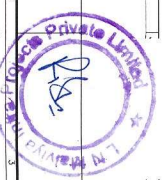
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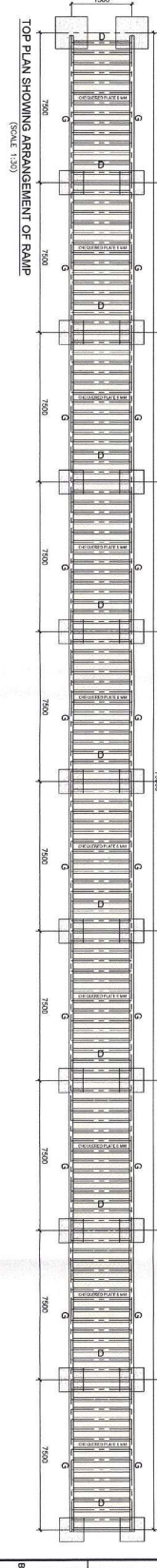
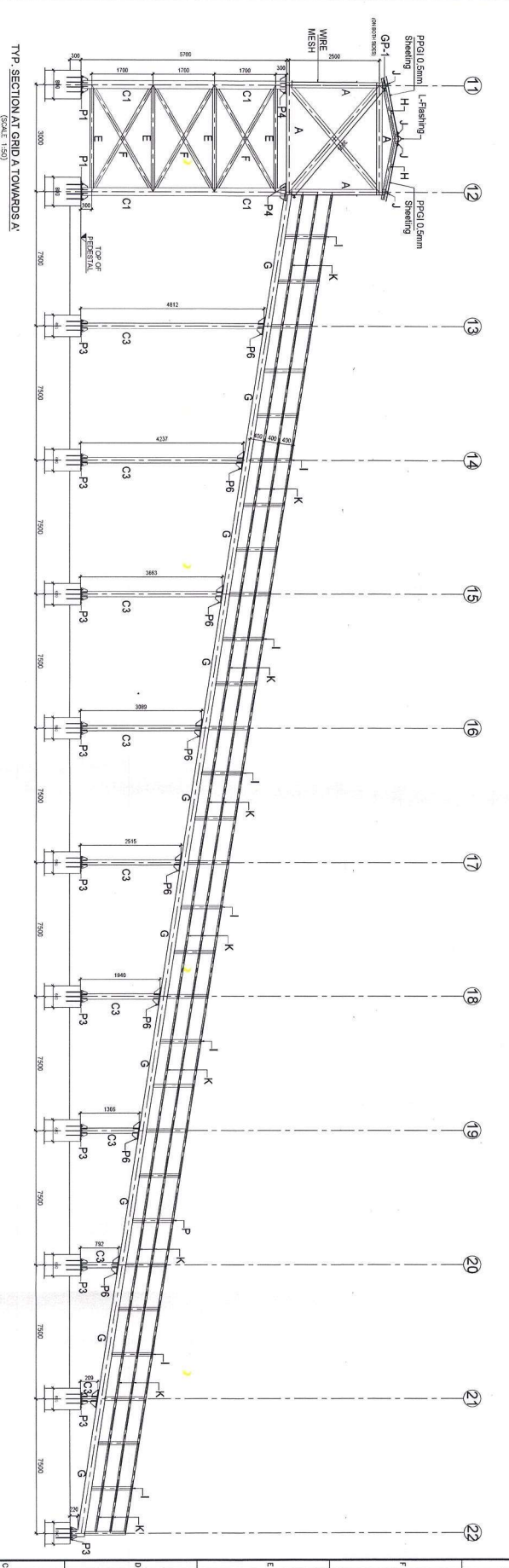
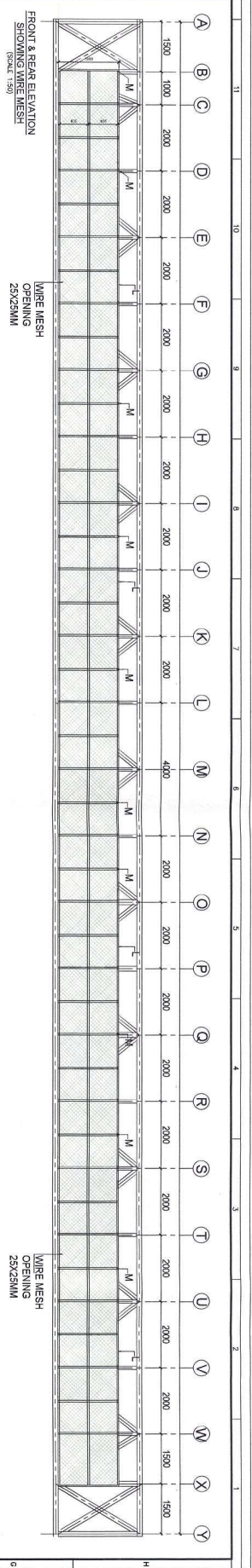
DRAWING NO.:

REV. NO.:



<b>CLIENT:</b> NATIONAL HIGHWAYS AUTHORITY OF INDIA MINISTRY OF ROAD, TRANSPORT & HIGHWAYS GOVERNMENT OF INDIA		<b>AUTHORITY ENGINEER:</b>		<b>CONTRACTOR:</b>		<b>DESIGN CONSULTANT:</b>	
<b>PROJECT:</b> Six Laning of Panipal - Kitana section of NH-7 (new NH-44) from km 96 to km 272 in the state of Haryana & Punjab.		<b>STRUCTURE TYPE:</b> RAFTERS BRIDGE		<b>DRAWING TITLE:</b> ELEVATION, TOP & BOTTOM PLAN OF BRIDGE		<b>DESIGNER'S SIGNATURE:</b>	
<b>FOR APPROVAL:</b>		<b>REVISIONS:</b>		<b>DATE:</b>		<b>SCALE:</b>	
<b>DATE:</b>		<b>REVISION:</b>		<b>DATE:</b>		<b>SCALE:</b>	





NO.	FOR APPROVAL	DESIGN BY	DRAWN BY
DATE	REVISIONS	REVISION	REVISION

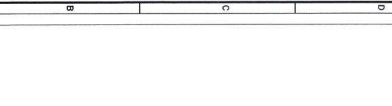
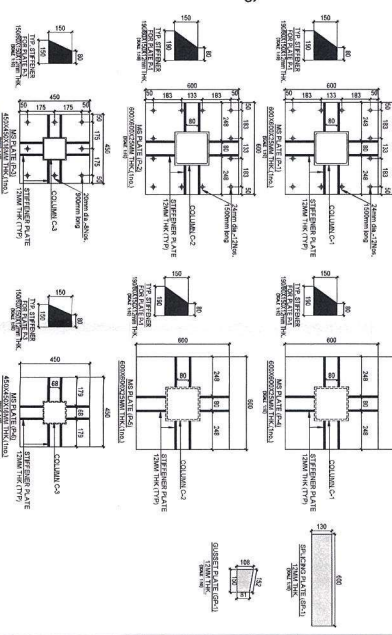
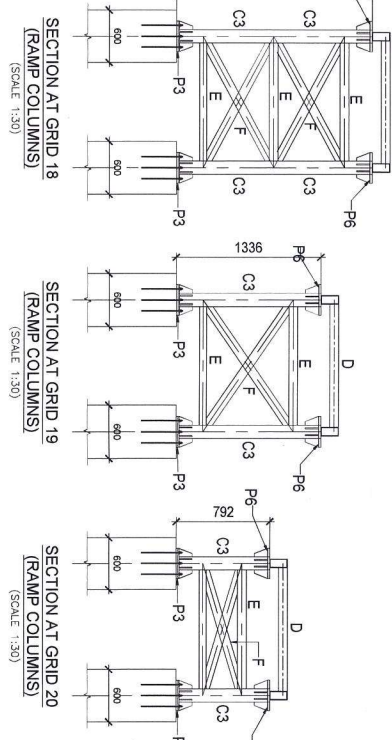
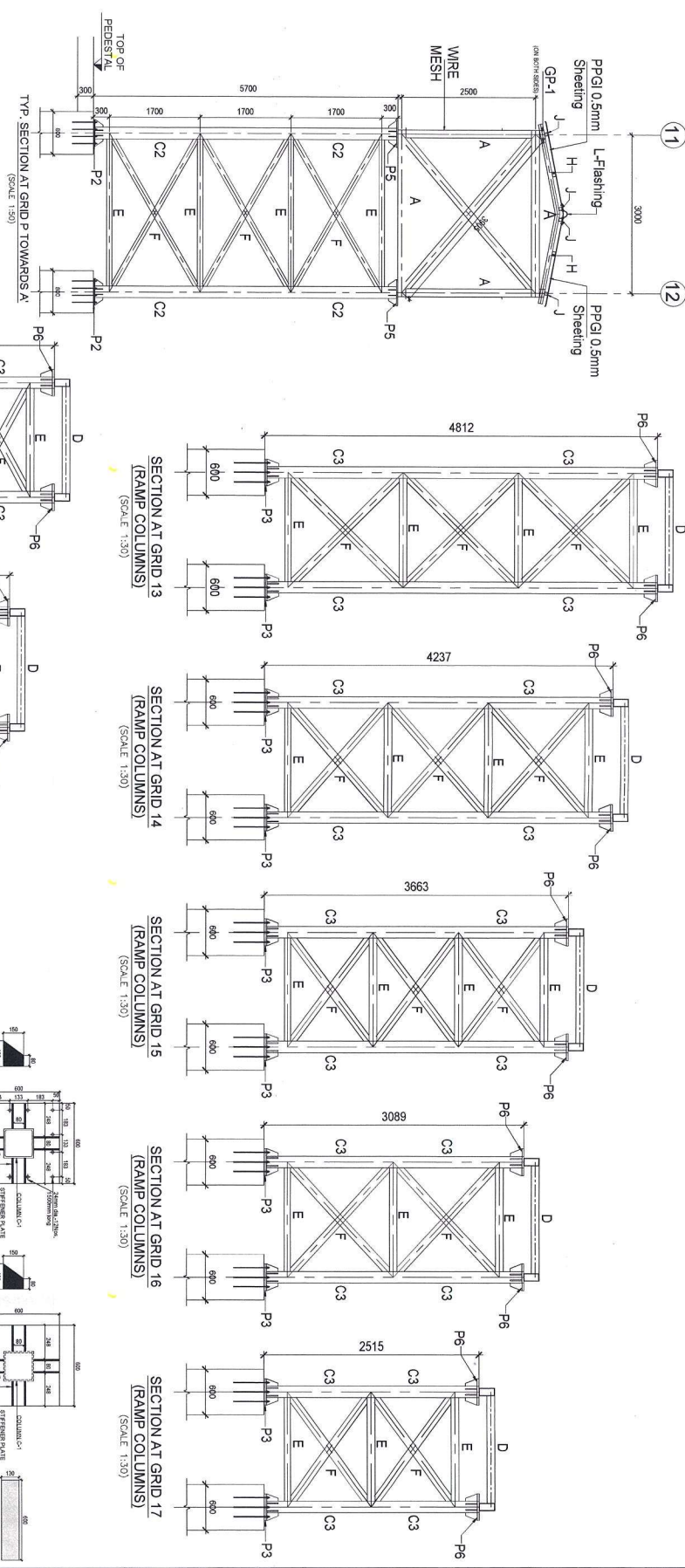
  

CLIENT:	NATIONAL HIGHWAYS AUTHORITY OF INDIA MINISTRY OF ROAD, TRANSPORT & HIGHWAYS GOVERNMENT OF INDIA
AUTHORITY ENGINEER:	
CONTRACTOR:	
DESIGN CONSULTANT:	

PROJECT:	Six Lanes of Panipat - Khamma section of NH-7 (new NH-44) from km 96 to km 277 in the state of Haryana & Punjab.
STRUCTURE TITLE:	FOOT-COVER BRIDGE
DRAWING TITLE:	ELEVATION & PLAN SHOWING RAMP ARRANGEMENT
SHEET NO.:	AS
SCALE:	AS MENTIONED IN DRAWING
DATE:	
REV. NO.:	





CLIENT: NATIONAL HIGHWAYS AUTHORITY OF INDIA MINISTRY OF ROAD, TRANSPORT & HIGHWAYS GOVERNMENT OF INDIA		AUTHORITY ENGINEER:		CONTRACTOR:		DESIGN CONSULTANT:	
PROJECT: Six Laning of Panipal - Khanna section of NH-1 (new NH-44) from km.96 to km 272 in the state of Haryana & Punjab.		JOB NO.: CC/CC/CC/CC/1101		DRAWING TITLE: SECTION THROUGH BRIDGE & RAMP COLUMNS & MS PLATE DETAILS		DRAWING SCALE: AS SHOWN IN DRAWINGS	
FOR APPROVAL:		DATE:		DESIGNER BY:		DRAWN BY:	
REVISIONS:		NO.		DATE		NO.	



MATERIAL TABLE			
S.N O.	DESIGNATION	PROPERTY	UNIT WT. (kg/m)
<b>PRIMARY MEMBERS</b>			
1	MEMBER A	SHS 150X150X6	26.40
2	MEMBER B	SHS 100X100X6	16.98
3	MEMBER C	SHS 100X100X6	16.98
4	MEMBER C-1	SHS 220X220X6	39.59
5	MEMBER C-2	SHS 220X220X8	51.96
6	MEMBER C-3	SHS 150X150X6	26.40
7	MEMBER D	SHS 100X100X6	16.98
8	MEMBER E	SHS 100X100X6	16.98
9	MEMBER F	SHS 100X100X6	16.98
10	MEMBER G	RHS 200X100X6	26.40
<b>SECONDARY MEMBERS</b>			
11	MEMBER H	SHS 80X80X4.8	10.87
12	MEMBER I	RHS 96X48X4.8	9.66
13	MEMBER J	RHS 122X61X5.4	14.01
14	MEMBER K	MS PIPE 48.3 OD (M) 3.2mm thk.	3.56
15	MEMBER L	ISA 40X40X5	3.00
16	MEMBER M	MS FLAT 50X3	1.18

MATERIAL TABLE			
S.N O.	DESIGNATION	PROPERTY	UNIT WT. (kg/m)
17	CHEQUERED PLATE	6MM THICK	52.30
18	MS PLATE P-1 FOB END COLUMN BASE PLATE	600X600X25	70.65
19	MS PLATE P-2 FOB COLUMNS BASE PLATE	600X600X25	70.65
20	MS PLATE P-3 RAMP BASE PLATES	450X450X16	25.43
21	MS PLATE P-4 FOB END COLUMN TOP BEARING PLATE	600X600X25	70.65
22	MS PLATE P-5 FOB MID COLUMN TOP BEARING PLATE	600X600X25	70.65
23	MS PLATE P-6 RAMP COLUMN TOP BEARING PLATE	450X450X16	25.43
24	SPLICING PLATE SP-1 FOR MEMBER A OF FOB	600X130X12	7.35per pc
25	GUSSET PLATE GP-1	CUT TO SHAPE	1.33per pc
26	ANCHOR BOLTS FOB END COLUMNS	M24-8.8 GRADE, 1500 LONG	
27	ANCHOR BOLTS FOB MID COLUMNS	M24-8.8 GRADE, 1500 LONG	
28	ANCHOR BOLTS RAMP COLUMNS	M20-8.8 GRADE, 900 LONG	

CLIENT: NATIONAL HIGHWAYS AUTHORITY OF INDIA MINISTRY OF ROAD, TRANSPORT & HIGHWAYS GOVERNMENT OF INDIA		AUTHORITY ENGINEER:		CONTRACTOR:	
DESIGN CONSULTANT:		PROJECT: Six Laning of Panipat - Khanna section of NH-1 (new NH-44) from km.96 to km 272 in the state of Haryana & Punjab.		STRUCTURE TITLE: OVERPASS BRIDGE	
DATE: 20.11.2023		FOR APPROVAL: ANAND KALSI		DRAWING TITLE: MATERIAL TABLE	
REVISIONS:		DESIGN BY: DEWANI BR		SCALE: AS SHOWN IN DRAWING	
REVISION:		DRAWN BY:		PROJECT NO.:	
NO.:		DATE:		REV. NO.:	

*(Handwritten signature)*





- RCC NOTES:**
1. ALL DIMENSIONS AND LEVELS ARE IN MILLIMETER UNLESS SPECIFIED OTHERWISE.
  2. GRADE OF CONCRETE MIX SHALL BE M35
  3. CLEAR COVER TO OUTER REINFORCEMENT FOR COLUMNS SHALL BE 50mm, FOR FOOTING SHALL BE 75mm UNLESS STATED OTHERWISE.
  4. LAP LENGTH / DEVELOPMENT LENGTH (Ld) SHALL BE 50 TIMES THE DIA. OF BAR AND LAP SHALL BE STAGGERED.
  5. 'Y' DENOTES HIGH YIELD STRENGTH DEFORMED BARS HAVING YIELD STRENGTH NOT LESS THAN 500 N/mm (Fe 500 D) CONFORMING TO IS : 1786 - 2008.
  6. NET SAFE BEARING CAPACITY OF SOIL CONSIDERED AT DEPTH OF 2.5M IS 135 KN/m<sup>2</sup>
  7. BACKFILLING SHALL BE DONE IF REQUIRED WITH SELECTED MATERIAL AS PER SPECIFICATION & IN UNIFORM HORIZONTAL COMPACTED LAYERS OF 200mm EVENLY AROUND THE STRUCTURE. EACH LAYER SHALL BE COMPACTED TO ACHIEVE 95% OF MDD.
  8. GROUND IMPROVEMENT SHOULD BE CARRIED OUT, IF NET ALLOWABLE BEARING PRESSURE IS NOT ACHIEVED AT THE BOTTOM LEVEL OF EXCAVATION ON NATURAL GROUND TO GET THE REQUIRED NET SBC.
  9. PCC SHALL BE LAID BELOW FOOTING, ONLY AFTER CONFIRMING THE NET ALLOWABLE BEARING PRESSURE AND ENSURING THE SETTLEMENT IS WITHIN PERMISSIBLE LIMITS.
  10. THE STRUCTURE HAS BEEN DESIGNED TO CARRY ZONE III SEISMIC FORCES.
  11. THE SIZE OF COLUMNS HAVE BEEN FIXED AS PER CLAUSE 7 OF IS: 13920:2016 "DUCTILE DESIGN AND DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES"
  12. TIES IN COLUMN HAVE BEEN PROVIDED AS PER CLAUSE 8 OF IS 13920:2016.

- STEEL NOTES:**
1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
  2. ALL ANCHOR BOLT DIAMETERS ARE IN MM.
  3. GRADE OF ANCHOR BOLTS IS M8.8
  4. ANCHOR BOLTS SHALL BE SET PERPENDICULAR TO THE THEORETICAL BEARING SURFACE UNLESS SHOWN OTHERWISE.
  5. THE AUTHORITY SHALL PROVIDE ACCURATE LOCATIONS OF STRUCTURE LINES AND BENCH MARKS AT THE SITE.
  6. ANCHOR BOLTS SHOULD BE SET TO THE GIVEN DIMENSIONS AND PROJECTION, WITH MAXIMUM DEVIATION OF 5MM. ANCHOR BOLT-0985421 SHOULD BE PROTECTED DURING CONCRETING OPERATION, OR THOROUGHLY CLEANED AFTER POURING. ALL TEMPLATES SHOULD BE REMOVED.
  7. THE INSTALLATION OF ANCHOR BOLTS AND EMBEDDED ITEMS MUST BE DONE IN ACCORDANCE WITH THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS, ANCHOR BOLTS AND FOUNDATION BOLTS SHALL BE SET BY THE CONTRACTOR, MAXIMUM ALLOWABLE TOLERANCES ARE AS FOLLOWS:
    - a) 3MM CENTER TO CENTER OF ANY TWO WITHIN AN ANCHOR BOLT GROUP.
    - b) 6MM CENTER TO CENTER OF ADJACENT BOLT GROUPS.
    - c) ELEVATION OF THE TOP OF ANCHOR BOLTS +/- 12MM.
    - d) MAXIMUM ACCUMULATION OF 6 MM PER 30 METER ALONG THE ESTABLISHED COLUMN LINE OF MULTIPLE ANCHOR BOLT GROUPS
    - e) 6MM FROM THE CENTER OF ANY ANCHOR BOLT GROUP TO THE ESTABLISHED COLUMN LINE THROUGH THAT GROUP.
  7. ALL STEEL WORK SHALL BE AS PER IS: 800 LATEST VERSION.
  8. STRUCTURAL STEEL SHALL BE AS PER 2062 GRADE 'A' LATEST VERSION.
  9. ALL WELDING SHALL BE DONE AS PER IS: 816 LATEST VERSION FOR ELECTRIC ARC WELDING.
  10. EXACT LENGTH OF MEMBERS SHALL BE DETERMINED AS PER TEMPLATE IN THE SHOP SITE OF WORK.
  11. JIG & FIXTURE ARE TO BE USED FOR WELDING VARIOUS MEMBERS.
  12. ALL JOINT SHALL BE 6MM THICK FILET WELDS.
  13. GRADE OF STEEL USED IN DESIGN IS E350.
  14. ROOF PPGI SHEETING TO BE USED SHOULD BE MINIMUM 0.50MM THICK.
  15. CUT LENGTHS OF ALL MEMBERS SHALL BE VERIFIED AFTER MAKING FULL SCALE LAYOUT AT YARD.
  16. THE MATERIALS & FABRICATION WORKS FOR THE STRUCTURAL STEELING, WORKS SHALL CONFIRM TO RELEVANT "IS" CODES.
  17. STEEL TUBES USED SHALL BE CONFIRMING TO IS : 4923-1997.
  18. TUBULAR MEMBERS SHALL HAVE ANGULAR CUT HEAD, SMOOTH FINISHED SO AS TO HAVE PROPER SEAT OVER THE SUPPORTING TUBE.
  19. ELECTRODE USED SHALL CONFIRM TO RELEVANT IS SPECIFICATIONS AND THE CHEMICAL COMPOSITION OF ELECTRODE AND TUBE SHOULD MATCH.
  20. SLAG SHALL BE REMOVED BEFORE MEASURING THE DIMENSIONS OF BUTT WELD. WELDING SHALL BE DONE BY ARC WELDING.
  21. THE STRUCTURAL TUBES USED SHALL BE OF "HEAVY DUTY" TYPE CONFORMING TO IS:116—1998.
  22. ALL THE HOLLOW BOX SECTIONS TO BE ENCLOSED USING MS PLATE 6MM THK SUCH AS INSIDE OF THE BOX IS EFFECTIVELY SEALED.

NO	DATE	REVISIONS	FOR APPROVAL	DESIGN BY	DRAWN BY	REV.



CLIENT: NATIONAL HIGHWAYS AUTHORITY OF INDIA  
MINISTRY OF ROAD, TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

AUTHORITY ENGINEER:

CONTRACTOR:

DESIGN CONSULTANT:



PROJECT: Six Laning of Panipat - Khanna section of NH-1 (new NH-44) from km 96 to km 272 in the state of Haryana & Punjab.

STRUCTURE TITLE: FOOT-COVER BRIDGE

DRAWING TITLE:

GENERAL NOTES

PROBABLE SHEET SIZE: 1800x1200

DRAWING NO.: